

From the literature: Motion sickness medication and psychomotor performance

A recently reported study from Defence Research and Development Canada investigates the psychomotor side effects of several motion sickness medications¹.

The study concluded that only one of the medications (or medication combinations) tested was free from impact on psychomotor performance and did not increase sleepiness.

“All three active drugs cause increased sleepiness.”

Accidents and Incidents: Ischaemic Heart Disease

The 22 April 1966 accident of a US registered Lockheed Electra L-188C (American Flyers Airlines Corp N183H) at Ardmore Municipal Airport OK resulted in the death of all of the 5 crew and 78 of the 93 passengers. The probable cause of this accident was determined as being incapacitation of the pilot in command, due to a heart attack, and the subsequent uncontrolled collision with the ground².

The aircraft captain was aged 59 and his autopsy showed "severe and very vast coronary arteriosclerosis".

US CAB 1967: “There have been numerous instances where a flight crewmember has become incapacitated from cardiovascular disease while at the controls of an air carrier airplane or just subsequent to flight.”

The US Civil Aeronautics Board report (SA-392) concluded: “The Board is concerned by the fact that the captain, who in this instance was also the president of the air carrier, had an established medical history of cardiovascular disease and diabetes mellitus, both of which are disqualifying for the issuance of a first-class medical certificate, and that he deliberately falsified his application for this certificate. We are aware that cardiovascular disease and diabetes mellitus could

remain undetected during the course of a first-class medical examination. There have been numerous instances where a flight crewmember has become incapacitated from cardiovascular disease while at the controls of an air carrier airplane or just subsequent to flight.” The Board recommended that the FAA review “methods of detecting medical deficiencies ... to ascertain whether it is possible and practicable to improve such methods of detection, particularly during first-class medical examinations.”

In New Zealand, 24 years later, the TAIC report into the 09 July 1990 fatal accident of ZK-FOM³ recommended that “More attention be paid to cardiovascular risk factors in asymptomatic individuals, in order to identify individuals with significant vascular disease, before the risk of pilot incapacitation becomes excessive.”

TAIC 1990: “More attention be paid to cardiovascular risk factors in asymptomatic individuals”.

For argument’s sake

Debate can take many forms. Some of the arguments applied in debate are logically valid and some are not. Some of the forms of fallacious argument have been recognised for many centuries and have been named, usually in Latin.

One such example, *Post hoc ergo propter hoc*, translates from the Latin as ‘after this, therefore on account of this’, and is the fallacy of supposing that because one event follows another the second has been caused by the first⁴.

A rather obvious example may be found in the following reasoning: “I’m not going to eat at the Scottish restaurant before I fly. Bill had a burger there and then did a wheels-up landing.” While one event (having a burger) may well have preceded the other (wheels-up landing) there is nothing to suggest a causative link.

Many gamblers’ rituals, such as chants, postures, or ‘lucky’ items, also demonstrate a reliance on the *post hoc ergo propter hoc* fallacy.

¹ [Motion-Sickness Medications for Aircrew: Impact on Psychomotor Performance](#). Paul MA, MacLellan M, and Gray G. Aviation, Space, and Environmental Medicine, 76(6): 560 – 565. June 2005.

² US National Transport Safety Board report [DCA66A0006](#) and Civil Aeronautics Board report [SA-392](#).

³ NZ Transport Accident Investigation Commission investigation report [90-086](#).

⁴ Pirie, M. *Book of the Fallacy: A Training Manual for Intellectual Subversives*. Routledge & Kegan Paul Books Ltd (1985).